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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/663,259	09/16/2003	Norman S. Martucci	0153.00087	1456

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EXAMINER

AFTERGUT, JEFF H

ART UNIT	PAPER NUMBER
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1733

DATE MAILED: 11/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/663,259

Applicant(s)

MARTUCCI, NORMAN S.

Examiner

Jeff H. Aftergut

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 6-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4-19-2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-5, drawn to a method for constructing a hose assembly, classified in class 156, subclass 149.
 - II. Claims 6-8, drawn to an apparatus for coating a hose, classified in class 118, subclass 400.
 - III. Claims 9-12, drawn to a hose assembly, classified in class 428, subclass 34.1.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the apparatus as claimed can be used to practice another and materially different process such as one which was for impregnating a fiber roving or tow with thermosetting resin wherein as the fibers were passed through the opening means (wherein the fibers were not in a braided condition) the individual fibers of the roving would have been spread apart wherein there is no sintering of the finished assembly but rather a drying of the coating to partially cure the same.
3. Inventions I and III are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2)

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that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product could be manufactured by a materially different process such as coating the fibers with the dispersion prior to the braiding operation and then braiding the coated fibers wherein the finished assembly was provided with a complete coating and no gaps therein. Additionally, a two coat method could be used wherein one coated the tube, braided dry fibers thereon and filled any gaps in the assembly with a second dispersion coating.

4. Inventions II and III are related as apparatus and product made. The inventions in this relationship are distinct if either or both of the following can be shown: (1) that the apparatus as claimed is not an obvious apparatus for making the product and the apparatus can be used for making a different product or (2) that the product as claimed can be made by another and materially different apparatus (MPEP § 806.05(g)). In this case the apparatus is not an obvious apparatus for making the product and the apparatus could be used to make other products such as a resin impregnated tow or roving or reinforcing fibers. Additionally, the product as claimed could be made without the use of the apparatus wherein the tube was initially coated with the dispersion, one then braided over the tube, followed by coating over the braided assembly to fill any possible gaps.

5. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

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6. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

7. During a telephone conversation with Amy Rinaldo on October 27, 2005 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-5. Affirmation of this election must be made by applicant in replying to this Office action. Claims 6-12 withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over either one of Japanese Patent 2001-289366 or Mathews et al (US 2002/0056511) in view of any one of Bates et al '743, Bates et al '282, Marzocchi et al '830, Marzocchi et al '123 or Marzocchi '452 optionally further taken with Gareis.

Either one of Japanese Patent 2001-289366 or Mathews et al suggested that it was known at the time the invention was made to form a braided hose assembly by applying a braided reinforcing material about an inner tubular layer, dispersing a polymeric material and a carrier fluid into the braided material to fill the interstices of the braided assembly and sintering the braided assembly after coating with the dispersion.

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The references both suggested that the braided hose assembly would have been fed through a reservoir which contained the dispersion therein, however there is no evidence that in the reservoir one skilled in the art would have opened up the fibers of the braid in order to facilitate the impregnation of the material. The applicant is specifically referred to the abstract of the disclosure of Japanese Patent '366 and paragraph [0036] of Mathews et al.

The references to any one of Bates et al '743, Bates et al'282, Marzocchi et al '830, Marzocchi et al '123 or Marzocchi '452 suggested that in a reservoir bath one skilled in the art desiring to impregnate a fiber bundle wherein the interstices or gaps between the fibers were completely infiltrated with resin would have incorporated a means to open the fibers up within the coating bath. More specifically, the references to Bates et al '743 at column 4, lines 35-65, column 5, line 1-column 6, line 59, Bates et al '282 at column 4, line 35-65, column 5, line 1-column 6, line 59, Marzocchi et al '830 at column 3, lines 44-60, Marzocchi et al '123 at column 6, lines 48-56 or Marzocchi '452 at column 5, lines 21-29. Clearly, the references to any one of Bates et al '743, Bates et al'282, Marzocchi et al '830, Marzocchi et al '123 or Marzocchi '452 suggested that within the reservoir one skilled in the art would have opened up the fibers in the assembly in order to facilitate impregnation of the same and that the opening up of the fibers within the reservoir would have been performed with the use of rollers in the reservoir about which the fibers were bent as they passed through the bath in order to promote impregnation within the spaces of the fibers. It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the techniques

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of any one of Bates et al '743, Bates et al '282, Marzocchi et al '830, Marzocchi et al '123 or Marzocchi '452 for impregnation of the fibers with a dispersion in order to ensure complete impregnation of the braided fiber assembly in either one of Japanese Patent 2001-289366 or Mathews et al (US 2002/0056511).

With respect to claim 2, note that the references to any one of Bates et al '743, Bates et al '282, Marzocchi et al '830, Marzocchi et al '123 or Marzocchi '452 suggested the bending step in the reservoir for infiltration of the material between the fibers therein. Regarding claim 3, note that the references to any one of Bates et al '743, Bates et al '282, Marzocchi et al '830, Marzocchi et al '123 or Marzocchi '452 suggested that the fibers would have been fed through a series of bends. Regarding claim 4, note that the references to any one of Bates et al '743, Bates et al '282, Marzocchi et al '830, Marzocchi et al '123 or Marzocchi '452 suggested that the reservoir would have included the bending means therein and thus the reservoirs of either one of Japanese Patent '366 or Mathews et al would have included the same. Inclusion of such rolls within the bath ensured penetration of the dispersion into the braid and between the fibers therein. Regarding claim 5, note that the references suggested the use of dispersion in a bath.

While the references as set forth above suggested that one skilled in the art would have bent the fibers in a resin impregnation bath in order to provide the coating between the fibers in the bath, the references to any one of Bates et al '743, Bates et al '282, Marzocchi et al '830, Marzocchi et al '123 or Marzocchi '452 are not treating a braided material within the bath. However, it was also known to open a braid up in a

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resin bath with a series of rollers therein in order to facilitate impregnation as suggested by Gareis. More specifically, the applicant is referred to rolls or bars 42, 44, 46, and 48 over and under which the braided assembly passes as it was fed through an impregnation bath in order to facilitate infiltration of the resin into the braid, see column 4, lines 29-35. Clearly, the technique used to coat the individual fibers of the roving or fiber bundles of any one of Bates et al '743, Bates et al '282, Marzocchi et al '830, Marzocchi et al '123 or Marzocchi '452 would have also been useful for coating a braided material to ensure infiltration of the coating material into the braid. It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the techniques of any one of Bates et al '743, Bates et al '282, Marzocchi et al '830, Marzocchi et al '123 or Marzocchi '452 in the braided hose assemblies of either one of Japanese Patent '366 or Mathews et al as such would have facilitated impregnation of the braid with the dispersion as evidenced by Gareis.

10. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over the references as set forth above in paragraph 9 further in view of E.P. 1,127,680.

While the references as set forth above suggested that those skilled in the art would have employed a dispersion in a reservoir or bath for coating the braided tube assembly, there is no evidence that one skilled in the art that one would have coated the braided tube with several dispersions. However, in the manufacture of a braided hose, it was known at the time the invention was made to provide multiple dispersions through which the hose was treated with the braiding thereon in order to impart the desired finished properties to the hose as evidenced by E.P. '680. Applicant is more

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specifically referred to column 9, lines 3-35, for example. Clearly, when one desired to provide, for example, a color to the hose or an anti abrasive property to the finished hose assembly, one skilled in the art would have known to provide a second dispersion through which the hose was passed in light of the suggestions of E.P. '680. It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ several coatings of dispersion to provide the desired exterior color or property (i.e. abrasion resistance or UV resistance for example) as suggested by E.P. 1,127,680 in the process of making a coated hose assembly as taught by the references as set forth above in paragraph 9.

Claim Rejections - 35 USC § 112

11. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

12. Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 5, line 3, the claim recites "the second polymeric material" which lacks proper antecedent basis. No second polymeric material has been defined in claim 1 or previously introduced in claim 5 so it is not clear whether applicant is referred to the polymeric material of claim 1 or another dispersion through which the hose passes.

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Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hinsky suggested coating a braided assembly where the braided assembly was passed over bends in the impregnating bath.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeff H. Aftergut whose telephone number is 571-272-1212. The examiner can normally be reached on Monday-Friday 7:15-345 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Dunn can be reached on 571-272-1171. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jeff H. Aftergut
Primary Examiner
Art Unit 1733

JHA
November 1, 2005